2. PERROTTETIA Kunth in Humboldt et al., Nov. Gen. Sp. 7, ed. 4°: 73; ed. f°: 57. 1824.

核子木属 he zi mu shu

Shrubs or small trees, dioecious, deciduous. Branchlets smooth, usually slightly zigzagged. Stipules small, caducous. Leaf blade margin sharply serrulate, crenate, or subentire. Inflorescence a raceme or panicle of thyrses. Flowers usually 4- or 5-merous. Male flowers: stamens inserted on disk margin; filament subulate; anther subglobose or ellipsoid. Female flowers: disk cup- or ringshaped; ovary semi-immersed in disk, mostly 2-loculed; ovules 2 per locule, basally attached, erect. Fruit a \pm dry berry, subglobose or depressed globose, 2–4-seeded. Seeds subglobose, erect; aril thin.

About 15 species: tropical America, NE Australia, China, Indonesia, Malaysia, New Guinea, Pacific islands, Philippines; two species (both endemic) in China.

- 1a. Inflorescences thyrses in a raceme; flowers 4- or 5-merous; stamens exserted from perianth; capsule apex rounded
- 1. P. racemosa

 1b. Inflorescences thyrses in a panicle; flowers most 4-merous; stamens included in perianth; capsule apex emarginate 2. P. arisanensis
- **1. Perrottetia racemosa** (Oliver) Loesener in Engler & Prantl, Nat. Pflanzenfam., Nachtr. 1: 224. 1897.

核子木 he zi mu

Ilex racemosa Oliver, Hooker's Icon. Pl. 19: t. 1863. 1889; *Perrottetia macrocarpa* C. Y. Chang.

Shrubs, 1-4 m tall, dioecious. Branches and branchlets purplish brown, puberulent when young, glabrescent. Stipules ca. 1 mm, membranous, caducous. Petiole 0.5-2 cm; leaf blade long elliptic to narrowly ovate, 5-15 × 1.8-5.5 cm, papery, abaxially puberulent along midvein and secondary veins but \pm glabrescent, adaxially glabrous, midvein and secondary veins abaxially elevated and adaxially ± flat, base slightly asymmetric and broadly cuneate to subrounded, margin sharply serrulate, crenulate, or rarely subentire, apex caudate-acuminate, cauda usually slightly curved. Inflorescences thyrses in a raceme, 2-4 cm at anthesis but on female plants to ca. 7 cm in fruit, puberulent. Flowers white, 4- or 5-merous. Sepals and petals similar but petal margin more distinctly fimbriate and slightly wider, triangular, ca. 1 mm on male flowers and ca. 0.5 mm on female flowers, persistent on female plants in fruit, apex acute. Pedicel ca. 1.5 mm at anthesis, puberulent. Male flowers 2–3 mm in diam.; stamens ca. 1.5 mm, inserted on disk margin, exserted from perianth; anthers ellipsoid, ca. 0.5 mm; disk compressed and flat. Female flowers ca. 1 mm in diam.; disk shaped; ovary 2-loculed, with 2 ovules per locule; style ca. 0.5 mm, persistent in fruit, apically 2-lobed. Berry red or dark red, subglobose, 2–3(–5) mm in diam., apex rounded. Seeds 1 or 2 per locule. Fl. May-Sep, fr. Aug-Nov.

• Mixed broad-leaved and deciduous forests, forest margins,

woodlands, scrub, valleys, riverbanks; 500–2900 m. Chongqing, Guangxi, Guizhou, SW Hubei, NW Hunan, Sichuan, S and SE Yunnan.

2. Perrottetia arisanensis Hayata, Icon. Pl. Formos. 5: 26. 1915

台湾核子木 tai wan he zi mu

Shrubs or trees, 3-4 m tall, dioecious, spindly. Branchlets purplish brown, pale brown tomentulose when young, glabrescent. Stipules scalelike, triangular, ca. 1 mm, brown puberulent, caducous. Petiole 0.5-1.5(-2) cm; leaf blade elliptic-oblong to lanceolate, $5-12(-16) \times 2-5(-7)$ cm, papery, abaxially pale brown tomentulose along midvein and secondary veins when young but soon glabrescent except sometimes along basal part of midvein and secondary vein axils, adaxially glabrous, midvein and secondary veins abaxially elevated and adaxially \pm flat, base often slightly asymmetric and rounded to cuneate, margin sharply serrulate, apex caudate-acuminate, cauda usually slightly curved. Inflorescences thyrses in a panicle, 2-4.5 cm. Flowers mostly 4-merous, ca. 2.5 mm in diam. Pedicel 1.5-3 mm, jointed, sparsely tomentulose, glabrescent. Sepals and petals 8, undifferentiated, greenish yellow, narrowly oblong, ca. 1 mm, glabrous, persistent on female plants in fruit, margin sometimes reddish, apex acuminate. Male flowers: stamens 4, inserted on disk margin, included in perianth; anthers yellowish, subglobose to ellipsoid, ca. 0.4 mm. Female flowers: ovary glabrous; style ca. 1.5 mm, persistent in fruit, apically 2-lobed. Berry reddish turning black when mature, slightly depressed globose, ca. 1.5 × 1.7 mm, 2loculed, apex emarginate. Seeds 2 per locule. Fl. Apr-Oct, fr. Jul-Nov.

• Broad-leaved evergreen forests, woodlands, scrub; 400–2500 m. Taiwan, C and SE Yunnan (Eshan, Xichou).